



## Complete Summary

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### TITLE

Hypertension: percentage of adult persons with diagnosed hypertension whose blood pressure (BP) is adequately controlled (BP less than or equal to 140/90 mm Hg) during the measurement year.

### SOURCE(S)

National Committee for Quality Assurance (NCQA). HEDIS 2004. Health plan employer data & information set. Vol. 2, Technical specifications. Washington (DC): National Committee for Quality Assurance (NCQA); 2003. 374 p.

## Brief Abstract

### DESCRIPTION

This intermediate outcome measure assesses if blood pressure was controlled among adult persons with diagnosed hypertension.

### RATIONALE

Proper management of hypertension has been shown to improve key outcomes such as death and disability. Furthermore, long-term consequences of uncontrolled hypertension are quite serious and can have a huge impact on consumers, plans/providers and purchasers.

### PRIMARY CLINICAL COMPONENT

Hypertension

### DENOMINATOR DESCRIPTION

Persons with Medicaid, commercial and Medicare coverage age 46 through 85 years as of December 31 of the measurement year with a diagnosis of hypertension and medical record review to confirm diagnosis and continuously enrolled for the measurement year (refer to the related "Denominator Inclusions/Exclusions" field in the Complete Summary)

### NUMERATOR DESCRIPTION

The number of people in the denominator whose blood pressure (BP) is adequately controlled (BP less than or equal to 140/90 mm Hg) during the measurement year (see the related "Numerator Inclusions/Exclusions" field in the Complete Summary)

## Evidence Supporting the Measure

### PRIMARY MEASURE DOMAIN

Outcome

### SECONDARY MEASURE DOMAIN

Not applicable

### EVIDENCE SUPPORTING THE MEASURE

A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence

A formal consensus procedure involving experts in relevant clinical, methodological, and organizational sciences

One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

## Evidence Supporting Need for the Measure

### NEED FOR THE MEASURE

Overall poor quality for the performance measured

### EVIDENCE SUPPORTING NEED FOR THE MEASURE

National Committee for Quality Assurance (NCQA). The state of health care quality 2003: industry trends and analysis. Washington (DC): National Committee for Quality Assurance (NCQA); 2003. 61 p.

## State of Use of the Measure

### STATE OF USE

Current routine use

### CURRENT USE

Accreditation

Decision-making by businesses about health-plan purchasing

Decision-making by consumers about health plan/provider choice

Internal quality improvement

## Application of Measure in its Current Use

### CARE SETTING

Managed Care Plans

#### PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Measure is not provider specific

#### LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Single Health Care Delivery Organizations

#### TARGET POPULATION AGE

Age 46 to 85 years

#### TARGET POPULATION GENDER

Either male or female

#### STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

### Characteristics of the Primary Clinical Component

#### INCIDENCE/PREVALENCE

Approximately 50 million Americans, including 30 percent of the adult population, have high blood pressure.

#### EVIDENCE FOR INCIDENCE/PREVALENCE

Burt VL, Whelton P, Roccella EJ, Brown C, Cutler JA, Higgins M, Horan MJ, Labarthe D. Prevalence of hypertension in the US adult population. Results from the Third National Health and Nutrition Examination Survey, 1988-1991. Hypertension 1995 Mar; 25(3):305-13. [PubMed](#)

#### ASSOCIATION WITH VULNERABLE POPULATIONS

Unspecified

#### BURDEN OF ILLNESS

Numerous clinical trials have shown that aggressive treatment of high blood pressure reduces mortality from heart disease, stroke and renal failure; results are particularly striking in elderly hypertensives, who are more likely to have heart failure. A pooling of past clinical trials demonstrated that a 5 to 6 mm Hg reduction in diastolic blood pressure was associated with a 42 percent reduction in stroke mortality and a 14 percent to 20 percent reduction in mortality from coronary heart disease.

## EVIDENCE FOR BURDEN OF ILLNESS

The sixth report of the Joint National Committee on prevention, detection, evaluation, and treatment of high blood pressure. Arch Intern Med 1997 Nov 24; 157(21):2413-46. [PubMed](#)

## UTILIZATION

Unspecified

## COSTS

The total direct cost for treating all cases of hypertension is estimated to be \$10 billion annually based on medication being 70 percent of total treatment costs and an estimation that those costs were \$7 billion in 1992. Four of the top 10 drugs prescribed in this country are antihypertensive agents.

The total direct cost for treating hypertension, including office visits, laboratory tests, and medications, is estimated to be \$950 in the first year of treatment, \$575 in the second year and \$420 per year thereafter.

Hospitalization for heart failure is the most expensive single item in the Medicare budget (over \$12 billion annually), and high BP is an antecedent in 90 percent of heart failure cases.

## EVIDENCE FOR COSTS

Ahluwalia JS, Doyle JP. Cost of hypertension treatment. J Gen Intern Med 1996 Apr; 11(4):252-3. [PubMed](#)

Levy D, Larson MG, Vasan RS, Kannel WB, Ho KK. The progression from hypertension to congestive heart failure. JAMA 1996 May 22-29; 275(20):1557-62. [PubMed](#)

Manolio TA, Cutler JA, Furberg CD, Psaty BM, Whelton PK, Applegate WB. Trends in pharmacologic management of hypertension in the United States. Arch Intern Med 1995 Apr 24; 155(8):829-37. [56 references] [PubMed](#)

Weinstein MC, Stason WB, Blumenthal D. Hypertension: a policy perspective. Cambridge (MA): Harvard University Press; 1976. 243 p.

## Institute of Medicine National Healthcare Quality Report Categories

## IOM CARE NEED

Living with Illness

## IOM DOMAIN

Effectiveness

## CASE FINDING

Users of care only

## DESCRIPTION OF CASE FINDING

Persons with Medicaid, commercial and Medicare coverage age 46 through 85 years as of December 31 of the measurement year with a diagnosis of hypertension and medical record review to confirm diagnosis and continuously enrolled for the measurement year with no more than one gap in enrollment of up to 45 days during the measurement year

## DENOMINATOR SAMPLING FRAME

Enrollees or beneficiaries

## DENOMINATOR (INDEX) EVENT

Clinical Condition  
Patient Characteristic

## DENOMINATOR INCLUSIONS/EXCLUSIONS

### Inclusions

Persons with Medicaid, commercial and Medicare coverage age 46 through 85 years as of December 31 of the measurement year with a diagnosis of hypertension and medical record review to confirm diagnosis and continuously enrolled for the measurement year

To confirm the diagnosis of hypertension, managed care organizations (MCOs) must find notation of the following in the medical record on or before June 30 of the measurement year:

- hypertension (HTN)
- high blood pressure (HBP)
- elevated blood pressure (•BP)
- borderline HTN
- history of HTN

The notation of diagnosis may appear anytime on or before June 30 of the measurement year, including prior to the measurement year. In addition, it does not matter whether hypertension was, or is currently being treated. Refer to the original measure documentation for further details.

### Exclusions

MCOs should exclude from eligible population all members diagnosed with end-stage renal disease (ESRD) anytime on or prior to December 31 of the

measurement year (refer to the original measure documentation for Current Procedure Terminology [CPT] codes to identify ESRD exclusion).

The MCO may exclude from the eligible population all members who had an admission to a non-acute inpatient setting any time during the measurement year (refer to the original measure documentation for codes to identify non-acute care).

## NUMERATOR INCLUSIONS/EXCLUSIONS

### Inclusions

The number of people in the denominator whose blood pressure (BP) is adequately controlled\* during the measurement year.

\*Adequate Control is both a representative systolic BP less than or equal to 140 mm Hg and a representative diastolic BP less than or equal to 90 mm Hg.

For a member's BP to be controlled, both the systolic and diastolic BP must be less than or equal to 140/90 mm Hg.

To determine if an individual's BP is adequately controlled, managed care organizations (MCOs) must identify the representative BP, defined as the BP reading from the most recent visit with a BP reading during the measurement year (as long as the visit occurred after the diagnosis of hypertension was made). If no BP is recorded during the measurement year, the member is assumed to be "not controlled." Refer to the original measure documentation for further details.

### Exclusions

Unspecified

## DENOMINATOR TIME WINDOW

Time window precedes index event

## NUMERATOR TIME WINDOW

Fixed time period

## DATA SOURCE

Administrative and medical records data

## LEVEL OF DETERMINATION OF QUALITY

Individual Case

## OUTCOME TYPE

Clinical Outcome

## PRE-EXISTING INSTRUMENT USED

Unspecified

## Computation of the Measure

### SCORING

Rate

### INTERPRETATION OF SCORE

Better quality is associated with a higher score

### ALLOWANCE FOR PATIENT FACTORS

Analysis by subgroup (stratification on patient factors)

### DESCRIPTION OF ALLOWANCE FOR PATIENT FACTORS

This measure requires that separate rates be reported for commercial, Medicare, and Medicaid plans.

### STANDARD OF COMPARISON

External comparison at a point in time  
External comparison of time trends  
Internal time comparison

## Evaluation of Measure Properties

### EXTENT OF MEASURE TESTING

Unspecified

## Identifying Information

### ORIGINAL TITLE

Controlling high blood pressure.

### MEASURE COLLECTION

[HEDIS® 2004: Health Plan Employer Data and Information Set](#)

### DEVELOPER

National Committee for Quality Assurance - Private Nonprofit Organization

## ADAPTATION

Measure was not adapted from another source.

## RELEASE DATE

2000 Jan

## MEASURE STATUS

This is the current release of the measure.

## SOURCE(S)

National Committee for Quality Assurance (NCQA). HEDIS 2004. Health plan employer data & information set. Vol. 2, Technical specifications. Washington (DC): National Committee for Quality Assurance (NCQA); 2003. 374 p.

## MEASURE AVAILABILITY

The individual measure, "Controlling High Blood Pressure," is published in "HEDIS 2004. Health plan employer data & information set. Vol. 2, Technical specifications."

For more information, contact the National Committee for Quality Assurance (NCQA) at 2000 L Street, N.W., Suite 500, Washington, DC 20036; Telephone: 202-955-3500; Fax: 202-955-3599; Web site: [www.ncqa.org](http://www.ncqa.org).

## NQMC STATUS

This NQMC summary was completed by ECRI on July 18, 2003.

## COPYRIGHT STATEMENT

This NQMC summary is based on the original measure, which is subject to the measure developer's copyright restrictions.

For detailed specifications regarding the National Committee on Quality Assurance (NCQA) measures, refer to HEDIS Volume 2: Technical Specifications, available from the NCQA Web site at [www.ncqa.org](http://www.ncqa.org).

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